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EXAMINER

LEE, JAE YOUNG

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/537,912 | Applicant(s) BRASCHI ET AL. | |
| | Examiner JAE Y. LEE | Art Unit 2419 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08 June 2005, 26 April 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status

1. Claims 1-21 have been cancelled.
2. Claims 22-42 have been added.

Claim Objections

3. Claims 22, 38, 40, 41 are objected to under 37 CFR 1.75 because of the following informalities:

Claims 22, 38, 40, 41 recite "adapted to." However, the claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure (MPEP 2111.04).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 40, Applicant has claimed both an apparatus and the process of using the apparatus and it is indefinite (See MPEP 2173.05(P)). Claim 40 recites "a method of

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expanding ..., the modular apparatus comprising a base module comprising” and the body of claim is directed to structural limitation. Therefore, it is unclear how “the modular apparatus comprising a base module” constitutes steps in a method.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claim 40** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For claim 40, Applicant has claimed both an apparatus and the process of using the apparatus. Claim 40 recites “a method of expanding ..., the modular apparatus comprising a base module comprising” and the body of claim is directed to structural limitation. Therefore, the claims are directed to neither a “process” nor a “machine” (See MPEP 2173.05(P)).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 22-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Koperda et al. (US 2002/0065935) in view of Rabenko et al. (US 2002/0006137).

For claim 22, Koperda discloses a system comprising:

- a modular expandable apparatus comprising at least one base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface);
- a broad-band data communication device for handling communications with an external data communication network through a broad-band data communication channel (table 1: ADSL interface; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface);
- at least one local network port for the connection to a local data communication network (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports

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paragraph 0043 lines 1-9: power supply module combined with Ethernet module);

- a local network interface device adapted to handle communications with the local data communication network and coupled to the local network port through a local network communication bus, the local network interface (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data);
- a data processing unit (paragraph 0066 line 1: system processor) interacting with the broad-band data communication device and interacting with the local network interface device through bus connected to interface thereof, for enabling intercommunication between the local network and the external network (table 1: ADSL interface; paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0049 lines 1-

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4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data);

- a signal line coupled to the input of the local network device and adapted to drive the local network interface device into a disabled state in which the local network interface device does not engage bus and the local network port (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches); and
- an expansion bus allowing expandability of the apparatus connecting at least one expansion module to the base module, the expansion bus comprising the interface bus, the local network communication bus and the signal line (Fig. 1: modular residential gateway; paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface; paragraph 0048 lines 1-6: communication bus transferring data directly between modules; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches)

Koperda does not explicitly disclose disable signal line and disable input.

However, Koperda discloses modules A, B, C, and D turning off respective communication bus 1 pass-thru switches (paragraph 0052 lines 1-3). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was

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made to implement disable input to turn off the communication bus of corresponding modules in order to control modular gateway efficiently.

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

For claim 23, Koperda discloses

- the local network is an Ethernet network, and the local network interface device comprises an Ethernet physical layer transceiver (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports; the Ethernet physical layer transceiver implicitly exists since the Ethernet module communicates with local device)

For claim 24, Koperda discloses

- the broad-band data communication device is an xDSL data communication device (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the

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system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; “x” is a wildcard that can be ADSL or SDSL)

For claim 25, Koperda discloses

- the broad-band data communication device is implemented by the data processing unit (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone)

For claim 26, Koperda discloses

- the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface) further comprises a data processing unit bus connected to the data processing unit, the base module being part of the expansion bus (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0048 lines 1-6: communication bus transferring data directly between modules)

For claim 27, Koperda discloses

- the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet

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module and ADSL interface) comprises at least one expansion connector connected and allowing access to the expansion bus (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-6: communication bus transferring data directly between modules)

For claim 28, Koperda discloses

- at least one expansion module, the expansion module comprising at least one input expansion connector matching the expansion connector (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-6: communication bus transferring data directly between modules) of the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface)

For claim 29, Koperda discloses

- the at least one expansion module further comprises an output expansion connector matching the input expansion connector (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-6: communication bus transferring data directly between modules)

For claim 30, Koperda discloses

- the data processing unit bus, the local network communication bus and the disable line is propagated from the input expansion connector to the output expansion connector of the expansion module (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone ; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0047 lines 1-3: power bus, clock bus, and communication buses; paragraph 0048 lines 1-6: communication bus transferring data directly between modules; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches; paragraph 0066 line 1: system processor)

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

For claim 31, Koperda discloses

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- the data processing unit bus is propagated from the input expansion connector to the output expansion connector of the expansion module (paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules), while the local network communication bus and the disable line are not propagated to the output expansion connector (paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches; paragraph 0066 line 1: system processor; disabling line are implicitly not to propagate to the output connector since the module turning off corresponding communication bus)

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

For claim 32, Koperda discloses

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- the at least one expansion module comprises an expansion module including an Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence)

For claim 33, Koperda discloses

- the Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) comprises bus, when the input expansion connector of the expansion module is connected to an expansion connector of the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules)

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

For claim 34, Koperda discloses

- the expansion module drives the disable line to a disable state for disabling the local network interface device of the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches)

For claim 35, Koperda discloses

- the Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) comprises:
- at least one first Ethernet port connected to a respective local network connector through a respective first local network communication bus (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; the Ethernet module implicitly have respective ports);
- a second Ethernet port connected through a second local network communication bus to the input expansion connector, for the connection to the local network communication bus of the expansion bus (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when

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stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; the Ethernet module implicitly have respective ports); and

- a third Ethernet port connected through a third local network communication bus to the output expansion connector (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; the Ethernet module implicitly have respective ports)

For claim 36, Koperda discloses

- the Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) includes at least one optical port connected through a respective optical communication bus to an optical transceiver of the expansion module (Fig. 1; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and FDDI interface; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network; optical transceiver implicitly exist used for FDDI communications)

Koperda does not explicitly disclose optical Ethernet. However, Koperda discloses FDDI interface (table 1) and power supply module combined with Ethernet

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module and FDDI interface (paragraph 0043 lines 1-9). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to implement optical Ethernet instead of FDDI to increase flexibility in optical communication systems.

For claim 36, Koperda discloses

- the Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) includes at least one optical port connected through a respective optical communication bus to an optical transceiver of the expansion module (Fig. 1; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and FDDI interface; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network; optical transceiver implicitly exist used for FDDI communications)

Koperda does not explicitly disclose optical Ethernet. However, Koperda discloses FDDI interface (table 1) and power supply module combined with Ethernet module and FDDI interface (paragraph 0043 lines 1-9). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to implement optical Ethernet instead of FDDI to increase flexibility in optical communication systems.

For claim 37, Koperda discloses

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- the at least one expansion module comprises a wireless local area network expansion module (Fig. 2)

For claim 38, Koperda discloses

- the at least one expansion module comprises a power line transmission expansion module adapted to allow communication (paragraph 0042 lines 1-2: power supply providing the power for the stack of modules; paragraph 0047 lines 1-3: power bus)

Koperda does not explicitly disclose AC power line. However, Koperda discloses power supply providing the power for the stack of modules (paragraph 0042 lines 1-2) and power bus (paragraph 0047 lines 1-3). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to allow communication over AC power line to supply power to modules.

For claim 39, Koperda discloses

- the base module comprises a power supply supplying the data processing unit and the local network interface device, and in which the expansion bus comprises power supply distribution lines, the at least one expansion module comprising at least one respective second power supply regulator (paragraph 0030 lines 8-11: additional power supply modules are added as required by the customer; paragraph 0042 lines 1-2: power supply providing the power for the

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stack of modules; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and wireless module; paragraph 0047 lines 1-3: power bus)

Koperda does not explicitly disclose power supply input for receiving unregulated power and at least one power supply regulator for generating regulated power supply from the unregulated power supply. However, Koperda discloses power supply providing the power for the stack of modules (paragraph 0042 lines 1-2) and power bus (paragraph 0047 lines 1-3). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to use power supply to generate regulated power supply from unregulated power supply in order to provide power to other modules.

For claim 40, Koperda discloses a method comprising:

- a broad-band data communication device for handling communications with the external data communication network through a broad-band data communication channel (table 1: ADSL interface; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface);
- at least one local network port for the connection to a local data communication network (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports paragraph 0043 lines 1-9: power supply module combined with Ethernet module);

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- a local network interface device adapted to handle communications with the local data communication network and coupled to the local network port, the local network interface device (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data); and
- a data processing unit (paragraph 0066 line 1: system processor) interacting with the broad-band data communication device and interacting with the interface of the local network interface device for enabling intercommunication between the local network and the external network (table 1: ADSL interface; paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data),

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- the method comprising : coupling to the base module (Fig. 1; paragraph 0042 lines 1-2: power supply module) at least one expansion module (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) including at least one expansion local network port for connection to the local data communication network, and an expansion local network interface device coupled to the expansion local network ports (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; network ports implicitly exists in Ethernet module);
- disabling the local network interface device of the base module (Fig. 1; paragraph 0042 lines 1-2: power supply module; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches);
- controlling the expansion local network interface device by means of the data processing unit (paragraph 0014 lines 4-7: using the processing element to identifying at least one communication bus that will be used by the first module to communicate a message to at least one second module; paragraph 0066 line 1: system processor) of the base module through the interface of the expansion local network interface device (Fig. 1; paragraph 0044 lines 3-7: modules

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communicating with each other using connectors mated when stacked together;
paragraph 0048 lines 1-4: communications bus 1 used by the system controller
to communicate supervisor message with all the modules and transferring data
directly between modules); and

- coupling the at least one local network port of the base module to the expansion
local network interface device (Fig. 1; paragraph 0043 lines 1-9: power supply
module combined with Ethernet module; paragraph 0044 lines 3-7: modules
communicating with each other using connectors mated when stacked together ;
paragraph 0048 lines 1-4: communications bus 1 used by the system controller
to communicate supervisor message with all the modules and transferring data
directly between modules)

Koperda discloses all the subject matter of the claimed invention with the
exception for media independent interface. Rabenko discloses media independent
interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the
person of ordinary skill in the art at the time of invention was made to incorporate the
media independent interface to the system of Koperda. The motivation would have been
to the use any of types of PHY devices without redesigning or replacing the MAC
hardware.

For claim 41, Koperda discloses

- an expansion local network interface device adapted to handle communications
with the local data communication network, the expansion local network interface

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device having an expansion interface (fig. 1: paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together ; paragraph 0049 lines 1-4: communication bus 3 carrying residential data);

- an expansion interface bus connected to the expansion interface (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules);
- an expansion local network communication bus connected to the expansion local network interface device (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules); and
- an expansion bus connection scheme for the connection of the expansion module to the expansion bus, the expansion bus connection scheme being adapted to (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4:

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communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules):

- connect the expansion interface bus to the interface bus of the expansion bus (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4:

communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules);

- connect the expansion local network communication bus to the local network communication bus of the expansion bus (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0049 lines 1-4: communication bus 3 carrying residential data)

Koperda does not explicitly disclose drive the disable signal line of the expansion bus to a state corresponding to a disabled state of the local network interface device.

However, Koperda discloses modules A, B, C, and D turning off respective communication bus 1 pass-thru switches (paragraph 0052 lines 1-3). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to disable the interface of module by turning off the respective communication bus 1 pass-thru switches in order to control modular gateway efficiently.

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Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

For claim 42, Koperda discloses

- a local communication network allowing user appliances to interconnect, comprising a modular expandable apparatus according to claim 22 (Fig. 1; paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone)

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jae Y. Lee whose telephone number is (571) 270-3936. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on (571) 272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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